PATENT CLAIMS

1. A converter circuit with short-circuit current protection having a DC voltage circuit (1), which DC voltage circuit (1) is formed by a DC voltage circuit subsystem (2.1), the DC voltage circuit subsystem (2.1) having a first energy store (3) and a second energy store (4), which is connected in series with the first energy store (3), and a fuse (5), and having at least one pair of branches (6) provided for each phase (R, S, T) and connected in parallel with the DC voltage circuit (1), each pair of branches (6) having power semiconductor switches, characterized in that the fuse (5) forms the connection between the first energy store (3) and the second energy store (4).

2. The converter circuit as claimed in claim 1, characterized in that the first energy store (3) has at least one capacitor, and
in that the second energy store (4) has at least one capacitor.

3. The converter circuit as claimed in claim 2, characterized in that, in the case of a first energy store (3) having two or more capacitors, the capacitors are connected in parallel, and
in that, in the case of a second energy store (4) having two or more capacitors, the capacitors are connected in parallel.

4. The converter circuit as claimed in claim 2, characterized in that, in the case of a first energy store (3) having two or more capacitors, the capacitors are connected in series, and
in that, in the case of a second energy store (4) having two or more capacitors, the capacitors are connected in series.

5. The converter circuit as claimed in one of the preceding claims, characterized in that in each case two phases (R, S, T) are connected to one another via a first drivable short-circuit element (8).

6. The converter circuit as claimed in claim 5, characterized in that the first drivable short-circuit element (8) is formed from two drivable power semiconductor switches connected back-to-back in parallel and each having pressure contact.

7. The converter circuit as claimed in one of the preceding claims, characterized in that at least one second drivable short-circuit element (7) is connected in parallel with the DC voltage circuit subsystem (2.1).

8. The converter circuit as claimed in claim 7, characterized in that the second drivable short-circuit element (7) is in the form of a drivable power semiconductor having pressure contact.

9. The converter circuit as claimed in one of the preceding claims, characterized in that the DC voltage circuit (1) has at least one further DC voltage circuit subsystem (2.2, ..., 2.n) of the DC voltage circuit subsystem (2.1), the DC voltage circuit subsystems (2.1, ..., 2.n) being connected in parallel with one another.